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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,078	08/07/2003	Gregory S. Helwig	25334A	9843

22889 7590 06/16/2005

OWENS CORNING  
2790 COLUMBUS ROAD  
GRANVILLE, OH 43023

EXAMINER
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TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/636,078

Applicant(s)

HELWIG, GREGORY S.

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 26-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 80703 031805.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-25, drawn to a product, classified in class 442, subclass 364.
  - II. Claims 26-36, drawn to a process of making, classified in class 156, subclass 166.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by hydroentangling bicomponent fibers into a layer of structural fibers and then heat activating the bicomponent fibers to couple the fibers.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with James Dottavio on June 7, 2005 a provisional election was made with traverse to prosecute the invention of group I, claims 1-25. Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Information Disclosure Statement***

5. The information disclosure statement filed March 18, 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 9-16, 18, 20, 22 and 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by NIELSEN et al. (EP 0465203 A1).

NIELSEN et al. relates to a thermally bonded fibrous wet laid web containing a bicomponent fiber including a polyester or polyamide fiber component and a component consisting of a linear low-density polyethylene. The web may further include a matrix fiber (*equated to the presently claimed structural fibers*), such as glass fibers, polyester fibers and polyamide fibers among others. (Abstract; Page 2, lines 8-11) The reference teaches the use of concentric sheath/core configuration in the bicomponent fibers. (Page 4, line 57 and Page 5, line 6) The reference teaches the use of a whitewater system of water, thickener and dispersant in the process for dispersing the bicomponent fibers and the matrix fibers in a furnish. (Page 5, lines 18-22) With regards to claim 16, the reference teaches bicomponent fibers with a sheath/core

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ratio of 40:60. (Page 8, line 47) Also glass fibers with a thickness (diameter) of 15 microns and a length of 0.5 inch. (Page 7, line 27) NIELSEN et al. also teaches embodiments that range from 75% bicomponent fiber and 25% PET fiber to 25% bicomponent fiber and 75% PET fiber of 1.5 dpf and cut length of 0.5 inches. (Refer to Page 10, lines 2-8)

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-8, 17, 19, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over NIELSEN et al. as applied above, and further in view of DE 19804418 A1 (Abstract) further evidenced by WEINLE et al. (US 4,840,832) and SANDSTROM et al. (US 6,379,497).

NIELSEN et al. is silent to the use of irregular shaped fibers.

The '418 reference relates to a padded underlay for use with decorative and/or cladding material. The reference teaches textile fibers in a combination of 10-95% of polyester fibers with a spiral crimp and 5-50 wt% of core/mantle bicomponent fibers. The mantle (sheath) of the bicomponent fiber is a polyester. (Abstract)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the matrix fibers of NIELSEN et al. and provide them with an irregular shape with the motivation of providing bulk and a structured appearance as disclosed by the DE '418 reference.

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With regards to claim 8, the use of heat expandable thermoplastic polymeric microspheres is well known in the art of nonwoven materials to provide bulk enhancement as evidenced by SANDSTROM et al. Therefore, the use of such material would have been obvious to one having ordinary skill in the art motivated by the desire of providing bulk or loft to the material.

With regards to claims 19 and 23, the NIELSEN and '418 disclose the claimed invention except that teach the use polyethylene or polyester instead of polypropylene in the sheath of the bicomponent fiber, WEINLE et al. (US 4,840,832) shows that polypropylene is an equivalent material known in the art. Therefore, because these materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute polyester or polyethylene for polypropylene in the sheath of the bicomponent fiber.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Norca L. Torres-Velazquez**  
**Primary Examiner**  
**Art Unit 1771**

June 8, 2005